

What is claimed is:

- 1 1. A fluid quick connector comprising:
2 a connector housing configured to mate with a male endform; and
3 an electrically conductive contact member mounted in the housing and
4 contacting the male endform to electrically connect the male endform and the quick
5 connector housing.
- 1 2. The fluid quick connector of claim 1 wherein the contact
2 member comprises:
3 a first portion mountable in the quick connector housing bore in contact
4 with the quick connector housing; and
5 at least one arm extending from the first portion for contact with the
6 male endform.
- 1 3. The fluid quick connector of claim 2 further comprising:
2 the arm extendable through an open end of the bore in the male
3 endform in contact with a surface of the male endform.
- 1 4. The fluid quick connector of claim 3 further comprising:
2 the arm having a bent end extendable into the male endform.
- 1 5. The fluid quick connector of claim 4 wherein the arm and the
2 bent end comprise:
3 a beam portion extending from the first portion of the contact member;
4 a back taper surface extending angularly from the beam portion; and
5 a tip end extending angularly from an edge at one end of the back taper
6 surface and defining a lead-in surface adapted to be engaged by a tip end of the
7 endform.
- 1 6. The fluid quick connector of claim 5 wherein:

2 the back taper surface extends at an obtuse included angle with respect
3 to the beam; and
4 the tip end extends at an obtuse included angle from the back taper
5 surface.

1 7. The fluid quick connector of claim 3 wherein the first portion
2 comprises:
3 a tubular body mountable in the bore in the quick connector housing,
4 the arm extending from one end of the tubular body.

1 8. The fluid quick connector of claim 7 wherein:
2 the tubular body is longitudinally split to form spaced edges allowing
3 compression of the tubular body for press-fit mounting of the tubular body in the
4 bore in the quick connector housing.

1 9. The fluid quick connector of claim 7 wherein the tubular body
2 further comprises:
3 another end oppositely formed from the one end of the body, a lead-in
4 edge formed on the another end.

1 10. The fluid quick connector of claim 2 wherein the first portion of
2 the contact member comprises:
3 an annular ring mountable in the bore in the quick connector housing,
4 the arm extending from the annular ring.

1 11. The fluid quick connector of claim 10 further comprising:
2 the arm having a bent end extendable through an open end of a bore in
3 the male endform.

1 12. The fluid quick connector of claim 10 further comprising:

2 at least one finger extending angularly from the annular ring of the
3 contact member, the at least one finger engagable with an end of the male endform.

1 13. The fluid quick connector of claim 10 wherein:
2 the annular ring is mountable in registry with a shoulder between two
3 stepped bore portions of the through bore in the quick connector housing.

1 14. The fluid quick connector of claim 1 further comprising:
2 the quick connector housing and the male endform being formed of an
3 electrically conductive material.

1 15. A fluid quick connector comprising:
2 a connector housing configured to mate with a male endform along a
3 first axis;
4 the quick connector housing and the male endform being formed of an
5 electrically conductive material; and
6 a contact member having a first portion fixedly mountable in a bore in
7 the housing, and an arm extending from the first portion adapted to extend through an
8 open end of a bore in the male endform to dispose the arm in contact with the male
9 endform.

1 16. An electrical contact for a fluid quick connector having a
2 connector housing configured to mate with a male endform, the electrical contact
3 comprising:
4 an electrically conductive contact member adapted to mount in a quick
5 connector housing to electrically connect a male endform inserted into the housing to
6 the quick connector housing.

1 17. The electrical contact of claim 16 wherein the contact member
2 comprises:
3 a first portion adapted to be mountable in the quick connector housing

4 bore in contact with the quick connector housing; and
5 an arm extending from the first portion adapted for contact with the
6 male endform inserted into the housing bore.

1 18. The electrical contact of claim 17 further comprising:
2 the arm adapted to be extendable through an open end of the bore in the
3 male endform into contact with a surface of the male endform.

1 19. The electrical contact of claim 18 further comprising:
2 the arm having a bent end adapted to be extendable into the male
3 endform.

1 20. The electrical contact of claim 19 wherein the arm and the bent
2 end comprise:
3 a beam portion extending from the first portion of the contact member;
4 a back taper surface extending angularly from the beam portion; and
5 a tip end extending angularly from an edge at one end of the back taper
6 surface and defining a lead-in surface adapted to be engaged by a tip end of the
7 endform.

1 21. The electrical contact of claim 20 wherein the arm and the bent
2 end comprise:
3 the back taper surface extends at an obtuse included angle with respect
4 to the beam; and
5 the tip end extends at an obtuse included angle from the back taper
6 surface.

1 22. The electrical contact of claim 17 wherein the first portion of
2 the contact member comprises:
3 a tubular body adapted to be mountable in the bore in the quick
4 connector housing, the arm extending from one end of the tubular body.

1 23. The electrical contact of claim 22 wherein:
2 the tubular body is longitudinally split to form spaced edges allowing
3 compression of the tubular body for press-fit mounting of the tubular body in the
4 bore in the quick connector housing.

1 24. The electrical contact of claim 22 wherein the tubular body
2 further comprises:
3 another end oppositely formed from the one end of the body, a lead-in
4 edge formed on the another end.

1 25. The electrical contact of claim 17 wherein the first portion of
2 the contact member comprises:
3 an annular ring adapted to be mountable in the bore in the quick
4 connector housing, the arm extending from the annular ring.

1 26. The electrical contact of claim 25 further comprising:
2 the arm having a bent end adapted to extend through an open end of a
3 bore in the male endform.

1 27. The electrical contact of claim 25 further comprising:
2 at least one finger extending angularly from the annular ring of the
3 contact member, the at least one finger adapted to engage the housing bore.

1 28. The electrical contact of claim 25 wherein:
2 the annular ring is adapted to be mounted in registry with a shoulder
3 between two stepped bore portions of the through bore in the quick connector
4 housing.

1 29. An electrical contact for a fluid quick connector having a
2 connector housing configured to mate with a male endform, the electrical contact
3 comprising:
4 a contact member having a first portion fixedly adapted to be
5 mountable in a bore in the housing, and an arm extending from the first portion
6 adapted to extend into contact with the male endform.

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